

# **EXHIBIT 1**

IN THE UNITED STATES DISTRICT COURT  
DISTRICT OF ARIZONA  
TUCSON DIVISION

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JAMES BLANKINSHIP, )  
 )  
Plaintiff, )  
 )  
v. ) CASE NO. 4:21-cv-00072-RM  
 )  
UNION PACIFIC RAILROAD )  
COMPANY, A DELAWARE )  
CORPORATION, )  
 )  
Defendant. )  
\_\_\_\_\_ )

Volume 1 (Pages 1-150)  
VIDEOTAPED DEPOSITION OF  
JEFF RABIN, O.D., M.S. PhD  
THURSDAY, APRIL 14, 2022

Stenographically Reported by:  
KATHRYN S. SWANK, RPR, CSR #13061

1 ANTHONY S. PETRU and GAVIN BARNEY, Attorneys at  
2 Law, of HILDEBRAND MCLEOD & NELSON, 350 Frank H. Ogawa  
3 Plaza, 4th Floor, Oakland, California 94612, appeared  
4 as counsel on behalf of the Plaintiff.

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8 JASMINE ANDERSON, Attorney at Law, of  
9 CONSTANGY, BROOKS, SMITH, & PROPHETE LLP, 601  
10 Montgomery Street, Suite 350, San Francisco,  
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12 the Defendant Union Pacific Railroad Company.

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16 SCOTT MOORE, Attorney at Law, of  
17 BAIRD HOLM LLP, 1700 Farnam Street, Suite 1500, Omaha,  
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19 Defendant Union Pacific Railroad Company.

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1 WILLIAM WALSH, Attorney at Law, of COZEN O'CONNOR,  
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4 Pacific Railroad Company.

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12

13 ALSO PRESENT:

14 JACQUELYN CLARK, Union Pacific Railroad Company  
15

16 ---o0o---  
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1 "However, it is strongly recommended that before any  
2 internal decision is made about relying on such  
3 testing devices in the field, and in particular the  
4 prototype LC, that they undergo proper scientific  
5 and operational validation studies to ensure that  
6 they will be fair, reliable, effective and be  
7 defensible for purpose of -- for that purpose should  
8 technical, administrative, or legal challenges arise  
9 from a candidate, current employee, union, or  
10 regulatory agency in charge of the public safety,"  
11 that is a recommendation, isn't it?

12 A Yes, sir. And I --

13 Q And you made -- you made that  
14 recommendation, didn't you?

15 A Yes, sir. I signed it; so I did.

16 Q And Union Pacific did not follow it, to  
17 your knowledge, correct?

18 MS. ANDERSON: Objection --

19 THE WITNESS: I -- that --

20 MS. ANDERSON: -- to form.

21 You can answer.

22 THE WITNESS: I -- that, I don't -- I can't  
23 answer. I have no knowledge.

24 MR. PETRU: Okay. All right. Well --  
25 yeah. That's why I asked the question that way,

1 operational validation studies prior to it being  
2 rolled out?

3 MS. ANDERSON: Objection. Asked and  
4 answered.

5 BY MR. PETRU:

6 Q I'm narrowing it down to eliminate some of  
7 the stuff that you had in the prior answer, sir.

8 I'll -- let me ask the question again and  
9 tell you what I'm --

10 A I have three words. Not to --

11 Q Sure.

12 A -- well, not --

13 Q Let -- let me -- let me -- let me -- let me  
14 ask the question again. Just for the record.

15 Is it correct that you are unaware of  
16 anything that Union Pacific did specifically to  
17 cause the light cannon to undergo proper scientific  
18 and operational validation studies before it was  
19 rolled out for fitness-for-duty purposes?

20 MS. ANDERSON: Objection. Asked and  
21 answered.

22 THE WITNESS: I am -- yes. I am unaware of  
23 anything UPRR did.

24 MR. PETRU: Okay.

25 Q Let's go back to our list here.

1 BY MR. PETRU:

2 Q On page 20, (as read), "In our opinion,  
3 while certainly worthy of a -- of continued  
4 development, the device in its current form remains  
5 technologically immature in the short term; lacks  
6 the necessary scientific and occupational  
7 validation, e.g. as reported by the NTSB following  
8 Goodwell; and addresses only a specific LED-based  
9 signal light recognition task within a wayside  
10 signal system that currently does not yet  
11 exclusively use LED signal lights. Most of these  
12 disconnects can be addressed with simple engineering  
13 improvements and a suitable validation program, but  
14 until the process is completed and signal light  
15 recognition tasks only involved LED wayside signal  
16 lights, exclusive reliance on the LC in its current  
17 form without proper validation as the only test to  
18 verify safe performance in critical color vision  
19 railroad tasks is problematic and challengeable."

20 Did I read that correctly?

21 A Yes.

22 Q And you meant that -- when it was written,  
23 you meant it -- correct? -- what you said here?

24 MS. ANDERSON: Objection. Object as to  
25 form. Lacks foundation.

1 You can answer.

2 THE WITNESS: Yes. But --

3 BY MR. PETRU:

4 Q Good.

5 A -- I want to stress -- I -- I'm sorry if my  
6 memory escapes me on this -- I don't know if this  
7 was the modified light cannon test or if this was  
8 the first one that we saw where we recommended  
9 several improvements.

10 And if you will scroll down, sir, you can  
11 see my main contribution to this, if it -- if  
12 it's -- if you have time.

13 Q Sure. I got time.

14 A About three quarters of the way down, I  
15 think my light measurements and --

16 Q You are talking about the pretty graphs?  
17 This stuff here?

18 A Yeah. So this is --

19 Q That -- that's your thing?

20 A This -- yeah. Umm, yeah. That's my thing.  
21 So that -- I mean, I --

22 Q All right.

23 A -- won't explain it or anything.

24 But what I was trying to do there was, if  
25 you look on the right, measure the color -- that's



1 know, on behalf of our clients, what you will  
2 testify to at trial, when I haven't been produced a  
3 document that you are relying on now -- do you know  
4 how difficult that is?

5 MS. ANDERSON: Objection. Argumentative.

6 BY MR. PETRU:

7 Q So my question is has anybody at the Union  
8 Pacific, any individual at Union Pacific, ever seen  
9 the proposed submittal for peer review that the  
10 graduate student and you worked on?

11 MS. ANDERSON: Objection as to form.

12 THE WITNESS: Not that document. But  
13 everything in that document is covered in the  
14 PowerPoint document, which summarizes all of the  
15 results.

16 BY MR. PETRU:

17 Q "The PowerPoint document, which summarizes  
18 all of the results."

19 Have I been -- has --

20 MR. PETRU: Counsel, have I been produced  
21 "the PowerPoint document that summarizes all of the  
22 results"?

23 MS. ANDERSON: I believe --

24 MR. MOORE: Yes.

25 MS. ANDERSON: Thank you, Scott. We both

1 as Exhibit 5 in just a minute, was that, to your  
2 knowledge, nobody at the UP saw or had seen the  
3 submittal that apparently is being worked on by  
4 Ms. Lovell, Julie Lovell, and you. But you said  
5 that the contents or the information is contained in  
6 the PowerPoint.

7 Did I get that correct?

8 A Yes, sir.

9 MR. PETRU: Okay. The PowerPoint, it was  
10 referred to as -- well, it will be Exhibit 5. And  
11 it's 001082. And I should indicate that this is  
12 BLANKINSHIP-001082. Some of the other documents are  
13 Harris documents and not Blankinship documents. I'm  
14 going to share it. Make sure we're talking about  
15 the same Megillah.

16 (Exhibit No. 5 was previously  
17 marked as Exhibit No. 4 for  
18 identification.)

19 BY MR. PETRU:

20 Q 001082 says, "Color Vision Field Test" with  
21 "BLANKINSHIP" across the front.

22 This is the PowerPoint, correct?

23 I'm going to go through the pages.

24 A Okay. Yes. Unless a more recent one was  
25 created by us.

1 But this, yes, seems to have everything.

2 Q Well, has "a more recent one been created  
3 by us"?

4 A No, I don't think so, sir.

5 Q Okay. And it runs through 001090.

6 And it's your testimony, if I understand it  
7 correctly, this contains all of the conclusions or  
8 the information that will be replicated in the  
9 submittal that's being worked on by you and  
10 Ms. Lovell; is that right?

11 A With the exception of the final graph, I  
12 myself determined a more effective way to correlate  
13 a computer-based test called the "cone contrast  
14 test" with the results of the cannon -- light cannon  
15 test.

16 And so that graph is essentially the same,  
17 but the -- statistically, it's more powerful what we  
18 did. I'll just say that.

19 Q So the -- (court reporter clarification.)

20 Okay. So the final page, page 9 of the  
21 nine-page PowerPoint, has a different graph  
22 utilizing a more sophisticated analysis model. Is  
23 that --

24 A Yes.

25 Q Okay. All right.

1 who is color deficient failed, everybody who is  
2 color normal passed.

3 Q Right.

4 So you -- you showed that your subsequent  
5 work was tweaked so that anybody who had color  
6 deficiency would fail the test, right?

7 A No. The primary thing was this, sir: What  
8 we found -- so this is what we were given to do in  
9 2019, dictated. So validate the light cannon. But  
10 there were 70 people who had already been tested and  
11 they are all color vision-deficient. So our aim  
12 then, in 2019, was to do the other half. What do  
13 color vision normals show?

14 68 percent of the subjects -- or 60 percent  
15 went through the study. We found that one quarter,  
16 25 percent, of color vision normals were failing the  
17 test as administered.

18 Q So the test -- the test as administered was  
19 not valid because of the high failure rate of color  
20 vision normal people, correct? Yes or no?

21 A Yes.

22 Q Okay. And you wanted to figure out why  
23 color vision normal -- you hadn't done it before.  
24 So you administered the test to color vision normal  
25 people. You saw the high failure rate that didn't

1 A Yeah.

2 Q The six or so people, six or seven people,  
3 who were there, Dr. Gillis, Ms. Clark, do you know  
4 the capacities of any other people who were there?  
5 Any lawyers, claims representatives, nurses, any of  
6 the counsel who are on this call today?

7 A Well, I wouldn't be surprised if  
8 Ms. Gengler was there. She's a nurse.

9 Q I know who she is.

10 A Okay. I wouldn't be surprised.

11 I don't recall any other legal  
12 representation --

13 Q Okay.

14 A -- frankly.

15 Q Did you know at that time that there were  
16 claims that employees had filed against Union  
17 Pacific for violation of the ADA because of color  
18 vision issues?

19 A I did not.

20 MS. ANDERSON: Objection as to form. Lacks  
21 foundation.

22 You can answer.

23 THE WITNESS: I -- not according to the  
24 ADA. But I suspected there were issues.

25

1 BY MR. PETRU:

2 Q Why did you suspect that there were issues?

3 A I probably heard that -- well, to put the  
4 cart before the horse, in the sense that, you know,  
5 a lot of color vision-deficients were tested, but we  
6 didn't do the full validation of the color normals.  
7 So it was my assumption that there were issues. But  
8 I did not -- I distanced myself from that, because I  
9 don't want that to influence science.

10 Q Okay. And in 2019, I think that the -- let  
11 me see if I can get this right here.

12 Was it in 2018 that you got permission or  
13 approval from the University of the Incarnate Word  
14 to do a, quote, validation of Union Pacific light  
15 cannon color vision field test?

16 A Yes. I submitted that, I believe, in 2018.  
17 Incidentally, I'm the presiding chair of  
18 the IRB.

19 But, yes, in 2018, we submitted it. We may  
20 have done -- no. We didn't do any amendments, I  
21 don't believe. But that was the first phase of the  
22 study.

23 I think I was just ensuring that, you know,  
24 we were on time to do it during the summer and had  
25 everything -- there was preliminary planning getting

1 the light cannon over to our location and things  
2 like that.

3 Q So when did you and your team start  
4 actually doing any work associated with this  
5 proposed validation project?

6 A Yes. So the -- my team isn't available  
7 until -- between May 15th and August 15th. So at  
8 the earliest, it was late May.

9 Q Of 2019, correct?

10 A Correct, sir.

11 Q Okay. And it wasn't completed in 2019.  
12 You did further work in 2020, correct?

13 A Yes, sir.

14 Q And then it was finally reported to Union  
15 Pacific on August 7th, 2020, correct?

16 A No. We wanted to modify the protocol in  
17 order -- we realized that there was the familiar --  
18 familiarity issue with the lights.

19 So we communicated that to Union Pacific,  
20 and we had to do an amendment to our protocol in  
21 order -- you have to do that. You can't just change  
22 what you are doing in an IRB-approved protocol. So  
23 that was all taken care of, but I had to run that by  
24 Union Pacific first.

25 Q Okay.

1 A It's a test they have already --

2 Q So let me ask the same question with that  
3 caveat. An IRB -- because I'm a neophyte, what does  
4 an "IRB" mean?

5 A I'm sorry. Institutional Review Board.  
6 It's not a faculty committee. It's an FT --

7 Q Got it.

8 A -- and regulated committee.

9 Q So the institution -- you are the chair of  
10 the Institutional Review Board.

11 A There are two chairs. I'm the presiding  
12 chair.

13 Q You are the presiding chair.

14 So knowing the protocols, in 2018, you  
15 submitted to yourself, as one of the two cochairs,  
16 the proposal.

17 A No. No. No.

18 Q I'm kidding. I'm being facetious. Let  
19 me -- don't bother with that.

20 You submitted the proposal. In 2019, you  
21 started doing work. You realized that there were  
22 problems with the scope, so you had to resubmit.  
23 You got resubmit approval.

24 And then, in 2020, you were able to go back  
25 to the project when you had your team assembled in,



1 what May through July, whatever it was, in 2020.

2 Fair?

3 A Yes, sir.

4 Q And then the results from all of that were  
5 summarized in this PowerPoint, which is Exhibit 5,  
6 correct?

7 A Yes, sir.

8 Q And to your knowledge, was that the first  
9 time that you or anybody associated with your team  
10 produced any purported validity analysis to Union  
11 Pacific of the light cannon protocol?

12 A Formerly. Now, they had the 2019. They  
13 knew what happened in 2019. But in terms of testing  
14 color vision-deficients and color normals, that was  
15 the first time --

16 Q Okay.

17 A -- the report was issued to them.

18 Q All right. So --

19 A There may have been some conversations, you  
20 know, that -- we may have had informal  
21 conversations, that sort of thing.

22 Q So just to put this into three dimensions,  
23 the original protocol, 2019 protocol, that's the  
24 original protocol you were talking about. Then  
25 there's the modification in 2020, right?

1 A Yes, sir.

2 Q And in 2019, you said we tested 68 color  
3 vision normals, and lo and behold, 26 and a half  
4 percent failed. We got a problem, right?

5 A Yes, sir.

6 Q So you reported to Union Pacific in 2019  
7 that the existing light cannon protocols that they  
8 were using was problematic, and you were -- you were  
9 catching a lot of folks who shouldn't have been  
10 caught.

11 A Not -- not problematic to color  
12 vision-deficients.

13 Q All right. So there was -- the problem is  
14 explained here, that 26 and a half percent of color  
15 vision normals were failed when they shouldn't have  
16 been. There's something wrong, right?

17 A Yes.

18 MS. ANDERSON: Objection. Argumentative.

19 MR. PETRU: Okay. Did you get the answer,  
20 Kathy?

21 MS. ANDERSON: Did you get the objection?

22 MR. PETRU: Jasmine, can you let her  
23 finish?

24 MS. ANDERSON: The objection comes before  
25 the response, but I'm --

1 be redeposed, we're going to ask that Union Pacific  
2 pay for all costs associated with that.

3 MS. ANDERSON: (Unintelligible) denied.

4 MR. PETRU: Let me go back to -- (reporter  
5 clarification).

6 MS. ANDERSON: Oh. I was just saying if he  
7 was asking Union Pacific to pay for costs, it's  
8 denied.

9 MR. PETRU: I'm not asking. I'm saying  
10 that that is going to be the request.

11 MS. ANDERSON: Understood.

12 MR. PETRU: And then we will ask the court  
13 to intervene.

14 Let me go back to our litany here of the  
15 documents you reviewed.

16 There's a nine -- Bates 082686. It's an  
17 e-mail from Dr. Holland dated 9/9/15 to you and  
18 Dr. Ivan. I think we might have covered this. We  
19 covered that one already. My bad.

20 093931. This is of an outline, excuse me,  
21 with a draft date of 9/17/15, from Dr. Holland to  
22 Steve Maxwell, director of Administrative Services  
23 Health and Medical Services.

24 Q Did you ever speak to a Mr. Maxwell?

25 A Not that I recall, sir.

1 Q Okay. And this is the Scope of Work for  
2 Consultation Assess Face Validity of CVFT Device and  
3 Test Protocols.

4 Did I read it correctly?

5 A Yes, sir.

6 Q And the validity portion of this is  
7 something that was not formally completed until  
8 August 7th, 2020, correct?

9 A In my opinion, yeah.

10 MR. PETRU: Okay. Next -- actually, let me  
11 go back. I'm going to mark 093931 as Exhibit -- I  
12 think we're at 6, correct?

13 THE COURT REPORTER: Yeah. We're at 6.

14 (Exhibit No. 6 was marked for  
15 identification.)

16 BY MR. PETRU:

17 Q Next document is 22675. September 24th  
18 e-mail from Holland to you and Ivan. Apparently you  
19 had a phone call, because you and he talked.

20 Do you remember that?

21 A I can't remember the specific nature of  
22 that, but apparently we did.

23 Q Do you remember -- look. I got a cell  
24 phone here. Anybody want a cell phone? I'm  
25 kidding.

1 Dr. Verdon's opinion if he evaluates a railroad  
2 employee to determine their fitness to be able to  
3 read and interpret wayside signals?

4 MS. ANDERSON: Objection. Lacks  
5 foundation. Object to form.

6 THE WITNESS: I highly respect the  
7 individual. But it would depend on what tests he  
8 ran on the -- on the patient, so I cannot speak  
9 specifically to that.

10 BY MR. PETRU:

11 Q What other tests are there besides the  
12 Ishihara, which you consider to be -- if you have  
13 somebody, for example, who comes into a clinic and  
14 fails an Ishihara, what other tests would you  
15 administer to determine the nature of their color  
16 deficiency relative to be able to see railroad  
17 signals?

18 MS. ANDERSON: Object to form.

19 You can answer.

20 THE WITNESS: Okay. We have the most  
21 extensive color vision testing in Texas. We have  
22 the Raley (phonetic) Anomaloscope, which is the gold  
23 standard for red-green color deficiency.

24 We have three computer-based tests that are  
25 similar to the cone contrast tests, including the